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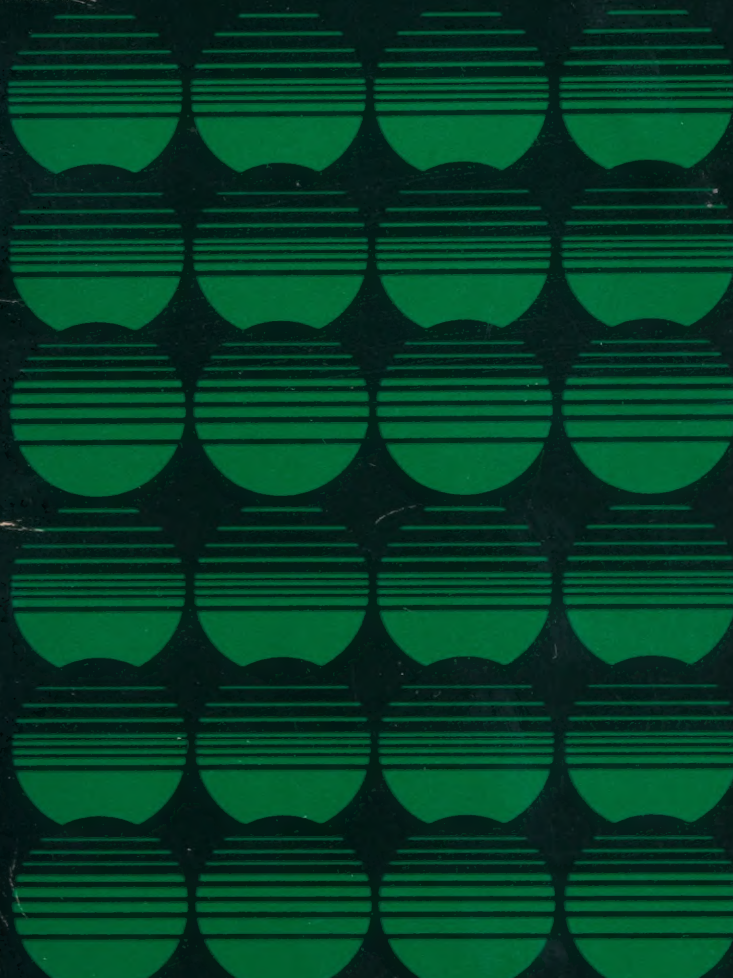
Statistics Canada

Statistique Canada

Understanding Labour Force Data

Employment
and Unemployment Statistics

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Understanding Labour Force Data

Employment
and Unemployment Statistics

How are employment and unemployment figures collected?

Official employment and unemployment statistics are gathered monthly through Statistics Canada's *Labour Force Survey* using personal and telephone interviews.

Data from this Survey provide a very up-to-date picture of Canada's labour force. Taken with data produced from other surveys and from administrative records, they can be used to examine in detail a great many aspects of Canada's labour force.

Begun in 1945, the Labour Force Survey is conducted monthly with a scientifically selected sample of some 55,000 households. Most survey questions refer specifically to the week preceding the interviews, so that much of the data from the Survey refer to that particular "reference week".

The sample is designed to represent all persons in the population 15 years of age and over residing in Canada, with the exception of residents of the Yukon and Northwest Territories, those living on Indian Reserves, inmates of institutions and full-time members of the armed

forces. (In total, these exclusions represent less than 3 percent of the population.)

Who is included in “the labour force”?

The labour force is composed of persons 15 years of age and over who, during the reference week of the Labour Force Survey, were *employed* or *unemployed*.

Who exactly are the employed?

Persons counted by the Labour Force Survey as employed include all those who did any work for pay or profit during the reference week, or who worked as an unpaid family worker in a family farm or business. Also included are those who had a job but did not report to work that week, because of vacation, illness, a labour dispute, etc.

Who exactly are the unemployed?

The unemployed counted by the Labour Force Survey include those persons who were without work, were available for work, and had actively *looked for work* in the last four weeks. Also included are those who have not actively looked for work but had *been on temporary layoff* for six months or less, and those who had a new job to start within the next four weeks.

The unemployed include not only people who have lost their jobs, but also young people looking for their first job, and adults who have not been working for some time and who decide to seek a new job.

What does the unemployment rate show?

The unemployment rate represents the number of unemployed persons as a percentage of the labour force. The unemployment rate for a particular group (defined by age, sex, marital status, etc.) is the unemployment in that group expressed as a percentage of the labour force for that group.

Economists and others use the unemployment rate as an indicator of the amount of labour that is available to the economy but is not being utilized.

What is the participation rate and what does it tell us?

The participation rate represents the labour force as a percentage of the population 15 years of age and over. For a particular group (defined by age, sex, marital status, etc.) it is the labour force in that group expressed as a percentage of the population for that group.

It is a measure of the proportion of the working-age population which is employed or is seeking work.

What is the employment/population ratio and what does it tell us?

Sometimes known as the *employment rate*, the *employment/population ratio* represents the percentage of the working population (15 years of age and over) that actually holds a job.

Like the participation rate, it can be calculated for particular groups such as people of a certain age, sex, marital status or geographic location. In every case, it is the number of employed in that group over the working age population of the group, expressed as a percentage.

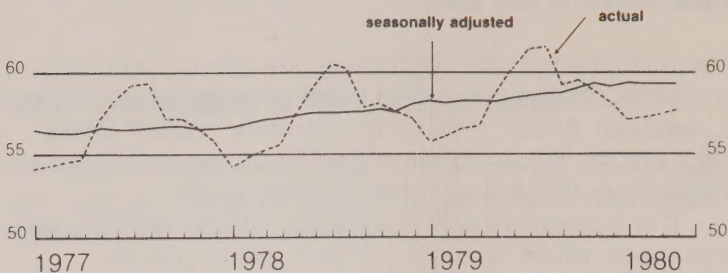
An increase in the employment/population ratio indicates that the number of people finding jobs is growing faster than the population. When this occurs at the same time as the unemployment rate is rising, it indicates that the economy is actually expanding to produce new jobs for people but that the labour force is growing even more rapidly.

What is meant by seasonally-adjusted data?

In a country such as Canada, seasonal variations in the climate and other regularly occurring events such as vacation periods and crop cycles affect nearly all business activity to some degree. Construction activity, for example, normally slows down in winter and picks up again in the spring. A seasonally adjusted series of estimates is one that has been adjusted to remove the effects of these regular changes so as to reveal the underlying trend in a series of month-to-month estimates.

This can be seen in the chart below which shows both the actual and the seasonally adjusted employment/population ratio.

Employment/Population Ratio



A graph of unemployment or participation rates would look similar, with a trend line seen to be passing through regular seasonal ups and downs.

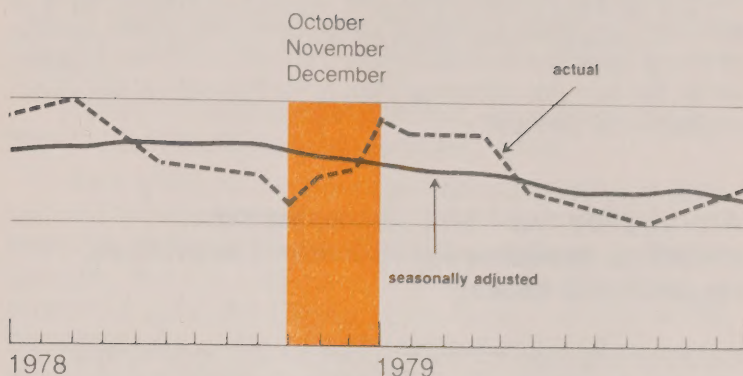
Why is it that the seasonally adjusted level of unemployment is sometimes falling when the actual number of unemployed is on the rise?

The Canadian unemployment rate shows a regular pattern of rising and falling which is repeated yearly. Beginning in late autumn, there is usually a rise that continues until late February or March when the rate peaks and then begins to fall again.

Suppose that between November and December there was a rise in unemployment that was less than what would normally be expected for the seasonal rise in that period. When the anticipated seasonal rise was subtracted from the actual rise in unemployment over the period, there would be a negative figure, indicating a decline in the underlying trend in unemployment. The actual number of unemployed would have risen (as is generally expected for this time of year) while the seasonally adjusted unemployment figures would have fallen, indicating a general trend to lower levels of unemployment.

In the chart below it can be seen how this pattern occurred during the months of October, November and December in 1978.

Unemployment rate



Does the unemployment rate measure economic hardship?

There is no doubt that a high unemployment rate indicates real economic hardship for many people. Analysed in special ways and used in conjunction with other available statistics, the unemployment rate can help fill out a fairly accurate picture of the economic hardship being suffered by unemployed people.

However, taken simply by itself, the unemployment rate is not intended to offer a direct measure of economic hardship. It is primarily designed to serve in economic analysis as a means of gauging the reserve of unused labour resources in the economy — the number of people whose services are available for pay if the economy could provide suitable jobs to employ them.

As such, it makes no distinction between, for instance, a job-seeker whose earnings are the sole source of income for a large family and an unemployed person who has substantial alternative sources of income.

To develop a picture of the kind of financial hardship associated with unemployment, it is possible to obtain statistics identifying duration of unemployment, the number of recent spells of unemployment, the presence or absence of other employed family members, the

availability of other sources of income such as earnings from previous employment, the number of dependents affected, and the incomes of other family members. Some of these data are available from the Labour Force Survey while the rest are obtained from other household surveys of Statistics Canada.

Are employment and unemployment statistics available for individual provinces, regions and cities?

Data are available for each province and for a number of cities and sub-provincial regions. In general, the smaller the geographic area the narrower is the range of data available for it and the less precise are the estimates.

Because the Labour Force Survey uses a scientifically designed sample of households (about one in every 125), it produces its most precise figures at the national and provincial level. A very limited range of data are available for 23 major metropolitan areas (as defined for the 1971 Census of Population) and for a number of specially defined economic regions. These data are confined to employment and unemployment totals (and the rates associated with them) with no detail for age, sex, or other variables.

How precise are the employment and unemployment figures?

The figures are as precise as is possible using a sample survey that is neither unduly expensive to conduct nor overly burdensome to the citizens who answer the questions.

Some amount of "sampling error" is expected because a *sample* of households is used instead of

visiting every household in the country. Estimates of the size of possible sampling errors are included with the published statistics or are available from Statistics Canada.

For different statistics from the Labour Force Survey, there are different possible sampling errors.

As a general rule, the larger the statistic the smaller will be the possible percentage of "sampling error". For example, for the estimate of total employment in all of Canada, there is a 95 percent chance that the figure produced using the Labour Force Survey sample would be within plus or minus *one percent* of the figure that would be produced by interviewing the entire population. However, for the Survey's estimate of employment in Nova Scotia, there is the same 95 percent chance that the estimate could be within plus or minus 10 percent.

What kinds of information can be found in statistics on the labour force?

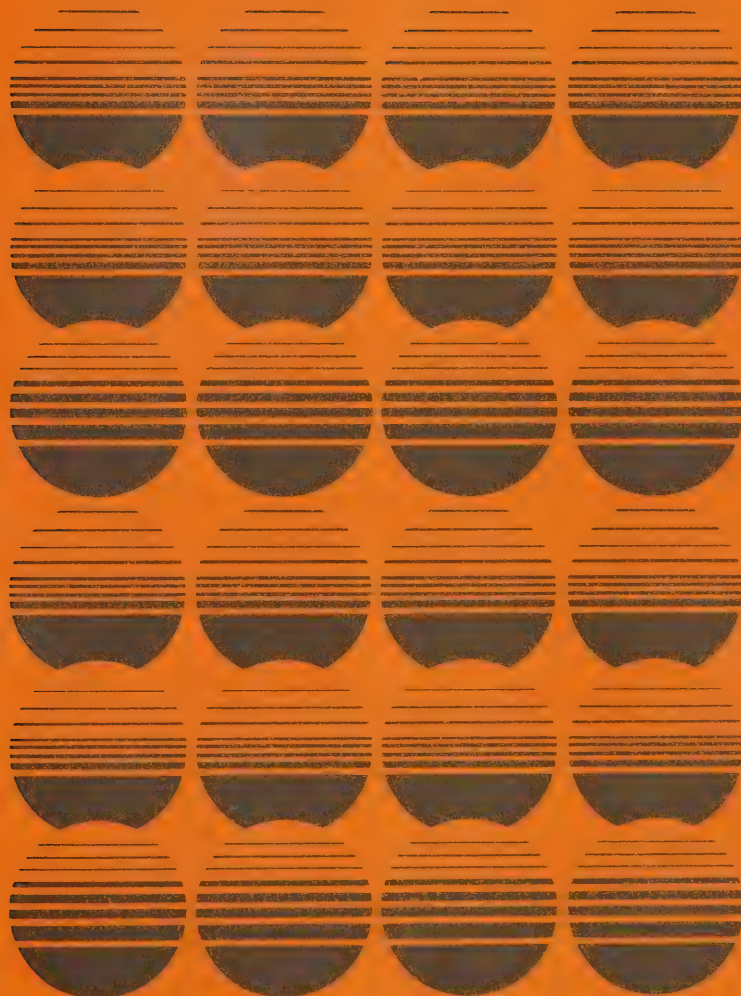
The Labour Force Survey provides a wide range of data on employment and unemployment identifying:

- educational attainment
- age, sex and marital status
- occupation and industry groupings
- full-time and part-time employment
- length of employment and unemployment
- family data

and much more.

Many more aspects of the labour force in Canada, individual provinces, regions or cities can be investigated with data available from other Statistics Canada surveys. These data include, for example, weekly and annual earnings, detailed statistics on employment by industry, and statistics for selected communities.

A Sample of Statistics on the Labour Force



Labour Force Summary — Canada

(1980 annual averages)

Column	Population age 15 years and over	Employed	Unemployed	Labour Force (employed plus unemployed)	Unemployment Rate (unemployed/ labour force)	Participation Rate (labour force/ total population)	Employment Rate (employment/ total population)
	A	B	C	D=B+C	E=C/D	F=D/A	G=B/A
Thousands							
Percent							
Both sexes	18,004	10,655	867	11,522	7.5	64.0	59.2
15 to 24 years	4,578	2,675	408	3,083	13.2	67.3	58.4
25 years and over	13,426	7,981	458	8,439	5.4	62.9	59.4
Men	8,826	6,430	479	6,909	6.9	78.3	72.9
15 to 24 years	2,316	1,438	229	1,667	13.8	72.0	62.1
25 years and over	6,510	4,993	250	5,242	4.8	80.5	76.7
Women	9,178	4,225	388	4,613	8.4	50.3	46.0
15 to 24 years	2,262	1,237	179	1,416	12.7	62.6	54.7
25 years and over	6,916	2,988	208	3,196	6.5	46.2	43.2

Participation Rate by Age — Canada

Employment/Population Ratio by Age — Canada

year	Men				Women			
	Total	15-24 years	25 years and over		Total	15-24 years	25 years and over	
Percent								
1972	77.5	64.4	82.3		40.2	51.8	36.2	
1976	77.6	67.9	81.1		45.2	56.8	41.1	
1980	78.3	72.0	80.5		50.3	62.6	46.2	
Change								
1972-76	0.1	3.5	-1.2		5.0	5.0	4.9	
1976-80	0.7	4.1	-0.6		5.1	5.8	5.1	

Men				Women			
Total	15-24 years	25 years and over		Total	15-24 years	25 years and over	
Percent							
73.0	56.7	79.0		37.4	46.9	34.1	
72.7	58.9	77.7		41.4	50.0	38.4	
72.9	62.1	76.7		46.0	54.7	43.2	
Change							
-0.3	2.2	-1.3		4.0	3.1	4.3	
0.2	3.2	-1.0		4.6	4.7	4.8	

(annual averages)

Labour Force Summary — The Provinces

(1980 annual averages)

Column	Population age 15 years and over	Employed	Unemployed	Labour Force (employed plus unemployed)	Unemployment Rate (unemployed/ labour force)	Participation Rate (labour force/ total population)	Employment/Population Ratio (employment/ total population)
	A	B	C	D=B+C	E=C/D	F=D/A	G=B/A
	Thousands						
	Percent						
Nfld.	402	184	29	213	13.5	53.1	45.9
P.E.I.	90	48	6	54	10.8	59.5	53.1
N.S.	628	328	36	363	9.8	57.9	52.2
N.B.	516	257	32	289	11.1	56.0	49.8
Que.	4,848	2,667	292	2,959	9.9	61.0	55.0
Ont.	6,535	4,066	300	4,366	6.9	66.8	62.2
Man.	752	459	27	486	5.5	64.6	61.0
Sask.	704	423	19	443	4.4	62.9	60.1
Alta	1,523	1,032	40	1,072	3.7	70.3	67.7
B.C.	2,006	1,191	87	1,278	6.8	63.7	59.4

Numbers of People Employed and Unemployed in the Provinces — over the years

(annual averages)

Year	Canada		Nfld.		P.E.I.		N.S.		N.B.		Quebec	
	em- ployed	unem- ployed	em- ployed	unem- ployed	em- ployed	unem- ployed	em- ployed	unem- ployed	em- ployed	unem- ployed	em- ployed	unem- ployed
Thousands												
1972	8,344	553	140	14	36	4	261	20	205	15	2,205	178
1976	9,479	727	157	24	42	4	292	31	226	28	2,456	233
1980	10,655	867	184	29	48	6	328	36	257	32	2,667	292
Percentage change												
1972-76	13.6	31.4	12.2	69.8	16.6	1.4	12.1	56.7	10.4	80.7	11.4	30.9
1976-80	12.4	19.3	17.3	19.2	13.1	29.0	12.1	16.2	13.6	15.2	8.6	25.3

**Numbers of People Employed and
Unemployed in the Provinces — over the years — (continued)** (annual averages)

Year	Canada		Ontario		Manitoba		Sask.		Alberta		B.C.	
	em- ployed	unem- ployed	em- ployed	unem- ployed	em- ployed	unem- ployed	em- ployed	unem- ployed	em- ployed	unem- ployed	em- ployed	unem- ployed
Thousands												
1972	8,344	553	3,239	171	386	22	336	16	671	40	865	73
1976	9,479	727	3,645	240	426	21	378	15	837	34	1,020	96
1980	10,655	867	4,066	300	459	27	423	19	1,032	40	1,191	87
Percentage change												
1972-76	13.6	31.4	12.5	40.5	10.2	-5.5	12.6	-0.2	24.7	-14.0	17.9	31.1
1976-80	12.4	19.3	11.6	25.1	7.8	28.9	12.0	25.6	23.3	15.4	16.8	-9.8

Employment and Unemployment in Selected Cities

(1980 annual averages)

Cities	Population 15 years and over	Labour Force		Participation Rate	Unemployment Rate	Employment/Population Ratio
		Total	Employed			
Thousands						
Percent						
Halifax	186	128	117	68.8	8.5	63.0
Montreal	2,200	1,394	1,271	63.4	8.8	57.8
Toronto	2,332	1,627	1,545	69.8	5.0	66.3
Winnipeg	460	305	287	66.3	5.8	62.4
Calgary	410	303	292	73.9	3.6	71.3
Vancouver	1,017	667	632	65.6	5.3	62.1

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Obtaining Statistics on the Labour Force

Selected PUBLICATIONS providing Statistics on the Labour Force

Labour Force Information, (catalogue no. 71-001 P)

Monthly. Bilingual.

Up to 38 pp.

Contains text and selected tables from
The Labour Force publication,
(catalogue no. 71-001)

Free (with Subscription to 71-001)

The Labour Force, (catalogue no. 71-001)

Monthly. Bilingual.

Up to 89 pp.

Presents adjusted and unadjusted estimates of labour force, employment and unemployment, with unemployment and participation rates analysed by selected geographic, demographic, and occupational variables. Includes updates to historical series contained in 71-201, occasional special analyses and notes on the Labour Force Survey including a sample questionnaire.

\$3.50 a copy \$35.00 a year

Historical Labour Force Statistics

Actual Data, Seasonal Factors, Seasonally
Adjusted Data,
(catalogue no. 71-201)

Annual. Bilingual. 168 pp.

This publication contains several hundred time series, derived from the monthly Labour Force Survey, for the periods January 1966 to December 1978, January 1970 to December 1978, and January 1975 to December 1978.

\$10.00

Guide to Labour Force Survey Data,
(catalogue no. 71-528)

Occasional.

Bilingual. 79 pp.

This publication does not offer statistical data but contains explanations of questionnaire content, survey methodology, and data interpretation. Provides a comprehensive description of the kinds of data which can be produced, indications of the statistical limitations of these data, and guidelines to their interpretation in light of the concepts, definitions, and data collection procedures which underlie the statistics.

\$1.05

Labour Force Annual Averages, 1975-1978,
(catalogue no. 71-529)

Occasional.

Bilingual. 210 pp.

This publication provides annual averages (for the years 1975 to 1978) of the tables published in catalogue no. 71-001. The data are derived from population projections based on the 1976 Census.

\$2.80

**Guide to Federal Government
Labour Statistics, 1979,**
(catalogue no. 72-512)

Occasional.

Bilingual. 162 pp.

The 162-page Guide provides researchers and others using federal government labour statistics with a reference document to 92 different surveys and administrative data sources plus reference to about 500 publications. The information covered includes the reference period and frequency, the number of reporting units, the industry coverage, the occupational and geographical detail collected, and the terminology and concepts used.

\$7.00

NOTE:

The data available in the above publications represent only a fraction of the total data available from the Labour Force Survey. Information on the kinds of additional data available, the cost (if any) of obtaining them and how the Survey is conducted can be obtained by contacting:

*Labour Force Survey Group
Statistics Canada
Ottawa, K1A 0T6
Telephone: (613) 995-9405*

Data on the labour force are also available through CANSIM, Statistics Canada's machine-readable data base.

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